

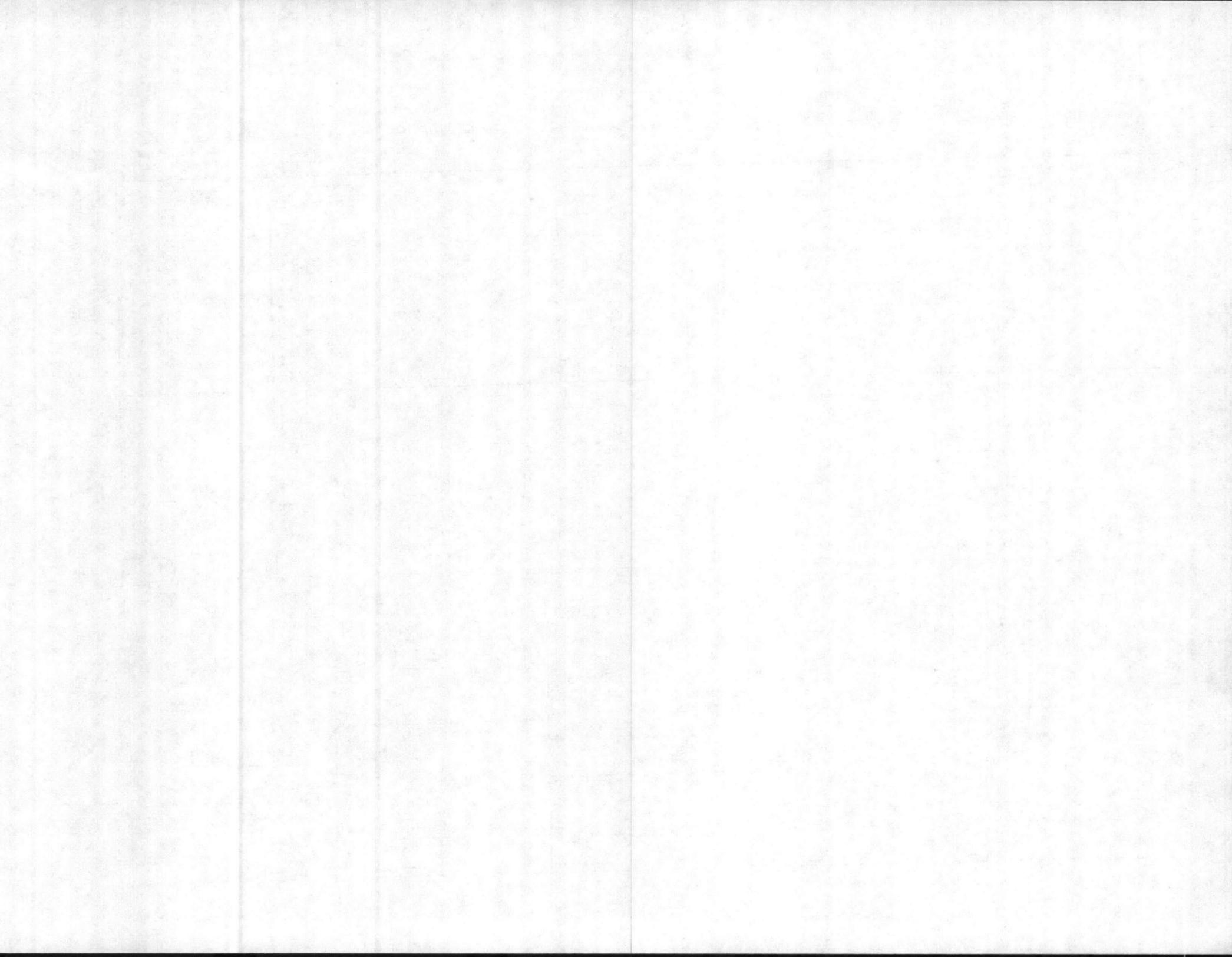
NO # 2480

MFGRS. SERIAL NO. 83.104B		MFGRS. MODEL NO. FRPK 2-260		MANUFACTURER FEDERAL BOILER COMPANY INC.		DATE OF SHEET 28 JULY-83	
TYPE OF SUPERHEATER NONE		FURNACE VOLUME _____ CU. FT.		OPERATION <input checked="" type="checkbox"/> AUTOMATIC <input type="checkbox"/> SEMI-AUTOMATIC <input type="checkbox"/> MANUAL		USE <input type="checkbox"/> EXPORT <input type="checkbox"/> ELEC. POWER GENERATION <input type="checkbox"/> LAID UP - WET <input type="checkbox"/> LAID UP - DRY HEATING	
TEMPERATURE AT SUPERHEATER OUTLET N/A °F		HEATING SURFACE (SQ. FT.) 142		PRESSURE (psig) 30 DESIGN		DATE BUILT 1983	
NORMAL FEEDWATER TEMPERATURE N/A °F		BOILER _____ WATER WALL _____ ECONOMIZER _____ SUPERHEATER _____		MAWP _____ INSTALLED WP _____		DATE INSTALLED JULY-83	
(See Reverse Side for Fittings)		DRUMS NO. _____ DIAMETER _____ IN. LENGTH _____ FT. _____ IN.		AIR HEATER <input checked="" type="checkbox"/> NONE <input type="checkbox"/> TUBULAR <input type="checkbox"/> REGENERATIVE <input type="checkbox"/> STEAM		BOILER TYPE <input type="checkbox"/> C.I. <input checked="" type="checkbox"/> WATER TUBE <input checked="" type="checkbox"/> FIRE TUBE	
		<input type="checkbox"/> RIVETED <input type="checkbox"/> FORGE WELDED <input type="checkbox"/> FUSION WELDED		CAPACITY 28.4 HP _____ LB. HR _____ EDR 4,170,000 BTU/HR.		<input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> FORCED <input type="checkbox"/> INDUCED	
						PRODUCES <input type="checkbox"/> STEAM <input checked="" type="checkbox"/> LOW TEMP. WATER <input type="checkbox"/> HIGH TEMP. WATER	
						CIRCULATION <input type="checkbox"/> NATURAL <input checked="" type="checkbox"/> FORCED	

		FUEL & FIRING EQUIPMENT IN SERVICE		ALTERNATE FUEL & FIRING EQUIPMENT	
FUEL	COAL	<input type="checkbox"/> ANTHRACITE <input type="checkbox"/> BITUMINOUS	OIL <input checked="" type="checkbox"/> COMMERCIAL 1, 2, 4, 5, 6 <input type="checkbox"/> NAVY <input type="checkbox"/> OTHER _____	COAL	<input type="checkbox"/> ANTHRACITE <input type="checkbox"/> BITUMINOUS
	GAS	<input type="checkbox"/> NATURAL <input type="checkbox"/> MANUFACTURED		GAS	<input type="checkbox"/> NATURAL <input type="checkbox"/> MANUFACTURED
FIRING EQUIPMENT	COAL - HAND FIRED	<input type="checkbox"/> COAL - STOKER <input type="checkbox"/> UNDERFEED - MULTIPLE RETORT <input type="checkbox"/> UNDERFEED - SINGLE RETORT <input type="checkbox"/> SPREADER - DUMP GRATE <input type="checkbox"/> SPREADER - VIBRATING GRATE <input type="checkbox"/> SPREADER - TRAVELING GRATE <input type="checkbox"/> CHAIN GRATE	COAL - PULVERIZER <input type="checkbox"/> ATTRITION <input type="checkbox"/> BALL & RACE <input type="checkbox"/> BOWL MILL <input type="checkbox"/> TUBULAR	COL - HAND FIRED	COAL - PULVERIZER <input type="checkbox"/> ATTRITION <input type="checkbox"/> BALL & RACE <input type="checkbox"/> BOWL MILL <input type="checkbox"/> TUBULAR
	GAS	<input type="checkbox"/> GAS RING <input type="checkbox"/> VENTURI TYPE	OIL BURNERS <input checked="" type="checkbox"/> MECHANICAL <input type="checkbox"/> STEAM ATOMIZED <input type="checkbox"/> AIR ATOMIZED <input type="checkbox"/> ROTARY CUP	GAS	OIL BURNERS <input type="checkbox"/> MECHANICAL <input type="checkbox"/> STEAM ATOMIZED <input type="checkbox"/> AIR ATOMIZED <input type="checkbox"/> ROTARY CUP

FIRING EQUIPMENT MANUFACTURER ABC SUNRAY CORP.	PROPERTY NO. 58	BUILDING OR LOCATION SH-8	ACTIVITY MCBCL
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DATA RECORD SHEET - BOILERS
MAYFAC 9-11014/40 (9-69) Supersedes MA/DOCKS 2509

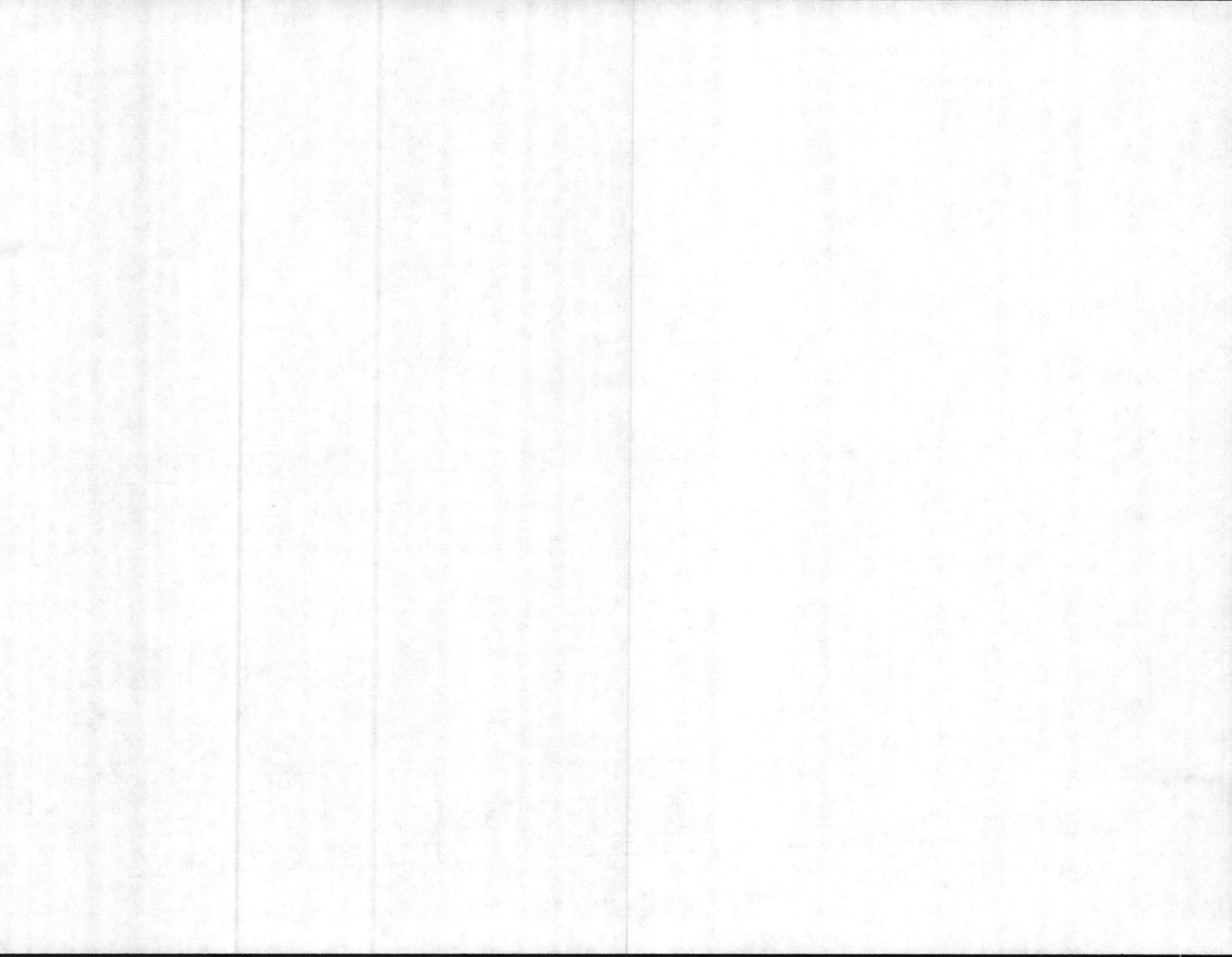


FITTING	NUMBER	SIZE	MANUFACTURER	TYPE	SETTING	RANGE	PRESSURE CLASS
SAFETY VALVES	1	1"	WATTS		30		
STEAM OUTLET VALVES	1	2 1/2"	BELL & GOSSETT CO	ANGLE			
BLOW-OFF VALVES	N/A						
FEEDWATER VALVES							
WATER COLUMN	N/A						
FEEDWATER REGULATOR							
WATER GAGES	1		US GAUGE	PRESS	0-50		
STEAM GAGES	1		US GAUGE	TEMP	60-260		
				PRESS-TEMP	60-260		
SOOT BLOWERS	N/A			PRESS	0-50		
FUSIBLE PLUGS	N/A						

SIU CAP. 1,300,000 BTU/HR.

LWCO - MCDONNELL NO 764

NB # 2480



DATE OF INSPECTION
 6 OCT - 18 NOV. 1983

TYPE OF INSPECTION
 A INTERNAL & EXTERNAL B INTERNAL & EXTERNAL WITH PRESSURE TEST C OPERATIONAL

1. FROM
 BASE MAINT. OFFICER
 CAMP LEJEUNE, N. C.

2. TO
 NAVFACENGOOM
 NORFOLK, VA

14. CERTIFICATE ISSUED YES NO
 EXPIRE 6 OCT 1984

15. BOILER INSPECTOR
 Thomas L. Lanier
 NAVY OR NATIONAL BOARD NO.
 NAVFAC 239

3. MANUFACTURER
 FEDERAL BOILER

4. PROPERTY NO. 5. MFG. SERIAL NO. 6. MFG. MODEL NO.
 58 83-104 B FRPK 2-260

7. BUILDING NO. 8. YEAR BUILT 9. CAPACITY
 SH-8 1983 1,170,000 BTU/HR

10. FUEL (Check) 11. PRESSURE
 COAL OIL GAS
 DESIGNED OPERATING TEST
 30 psi 12 psi 45 psi

12. FEED WATER TREATMENT 13. TYPE
 SATISFACTORY UNSATISFACTORY
 WATER TUBE FIRE TUBE C. I.

16. REASON FOR NOT ISSUING CERTIFICATE
 NEW BOILER WILL RETAIN
 SAME PROPERTY NO.
 AS OLD UNIT.

17. BOILER USE
 HEATING

18. COMBUSTION CONTROL (Mfg. Name)
 HONEYWELL

19. COMBUSTION 20. FLUE GAS TEMPERATURE
 12.0 % CO₂ % EXCESS O₂ AFTER BOILER 450° F : AFTER HEAT TRAP ° F

SAFETY DEVICES
 SAFETY VALVES

21. MANUFACTURER 22. NUMBER AND SIZE 23. PSI SETTING 24. CONDITION
 WATTS 1-1" 30 NEW

25. MANUFACTURER 26. CORRECTIONS
 U S GAUGE WATER LEG CONSTANT _____ psi; OTHER _____ psi

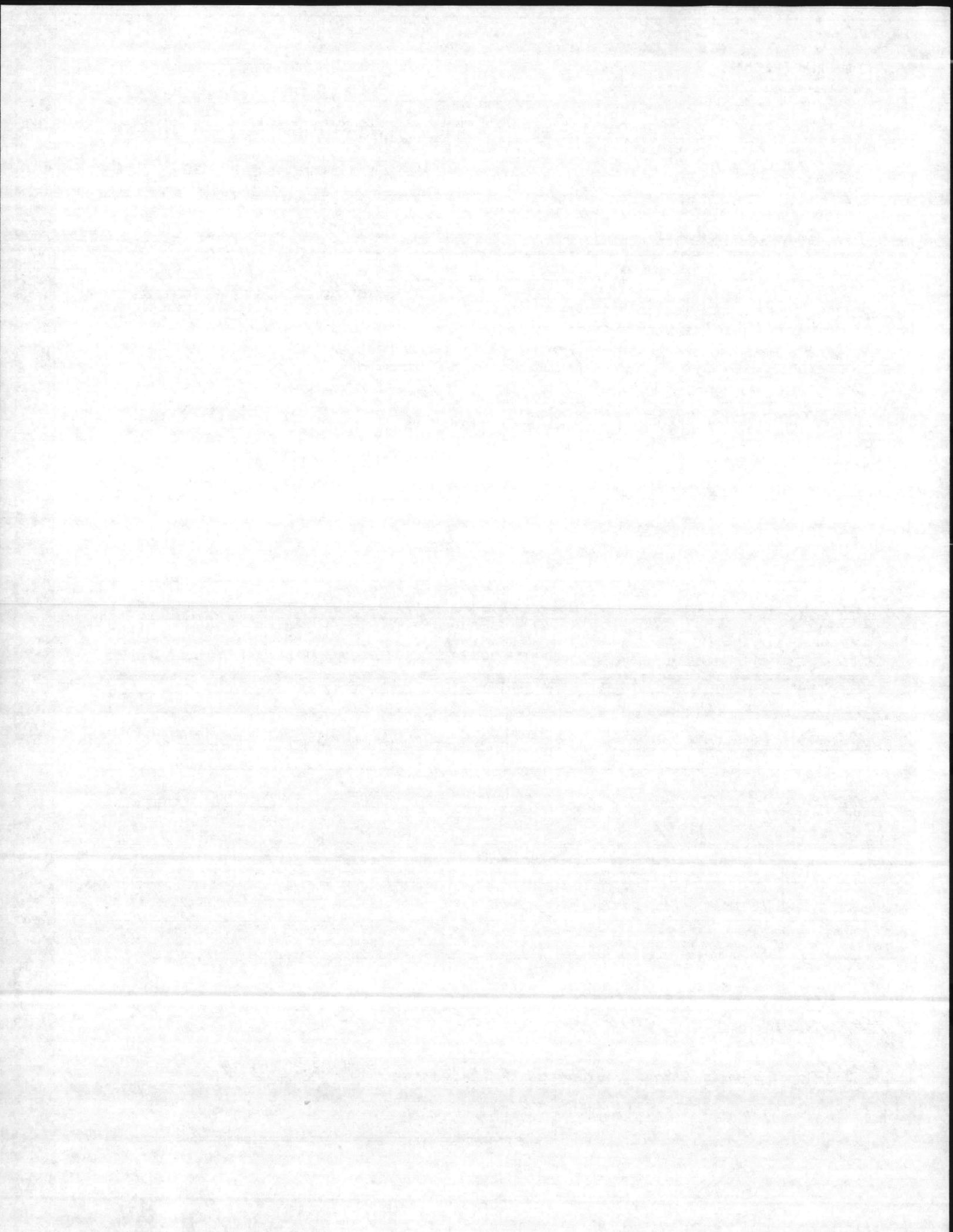
27. REASON IF NOT TESTED

FIRING EQUIPMENT		
ITEM	IN SERVICE	ALTERNATE
28. MANUFACTURER	ABC SUNRAY CORP.	
29. TYPE	NOZZLE SPRAY	
30. FUEL GRADE	#2	

31. INSPECTOR'S COMMENTS
 REPLACED ONE TUBE & REROLLED FOUR TUBES HYDRO - OK
 INSTALLED NEW BOILER UNDER CONTRACT # 83-5829

32. ATTACHMENT(S) (Check) 33. SIGNATURE
 COPY OF INSPECTOR'S REPORT SPECIAL COMMENTS
 R.M. Dillon

BY DIRECTION



TIME OUT:
TIME IN :

SH-8

INFORMATION DATE: 8/15-16-17/83

BURNER INSTALLED DATE: 8-15-83 Startup

BURNER MODEL: PHC-34 M.I. SPEC. Wiring DB 44421-4

BOILER MODEL: Federal Boiler FRPK2-260 Serial 2480

INSTALLER NAME: Roberts Welding Contractors

Route 1 Box 412 919-758-0157

Greenville, N.C.

LOCATION OF BURNER: Camp Le Jeune M.C.

Building SH-8

Camp Le Jeune, N.C.

BURNER SUPPLY: Federal Boiler Corp VIA

ABC Sunray Corp / OERTLI American

Commack, N.Y. (516) 543-4600

ATTENDING SERVICING: Jim Dionian - Engineering Startup ABC/Sunray

Wade Stitley - Roberts Manager Field

Mr. Pierce - Roberts Office Manager

John Pitre - Federal Boiler

DATE CODE OF BURNER: FB

SIZE & LENGTH OF PIPE: 2 Pipe Oil Lines #2 Fuel

9" Vac. Tank Size unknown

BTU ON METER: Gas Test only

SIZE OF METER: Gas Test only

DRAFT OVER FIRE = Can not be taken

DRAFT IN BREECHING = - .02"

CO₂ = 12.5%

CO or smoke = 0 Smoke High Fire

GROSS STACK TEMP. = 560° F

NET STACK TEMP. = 470° F

FLAME SIGNAL = NOT Taken

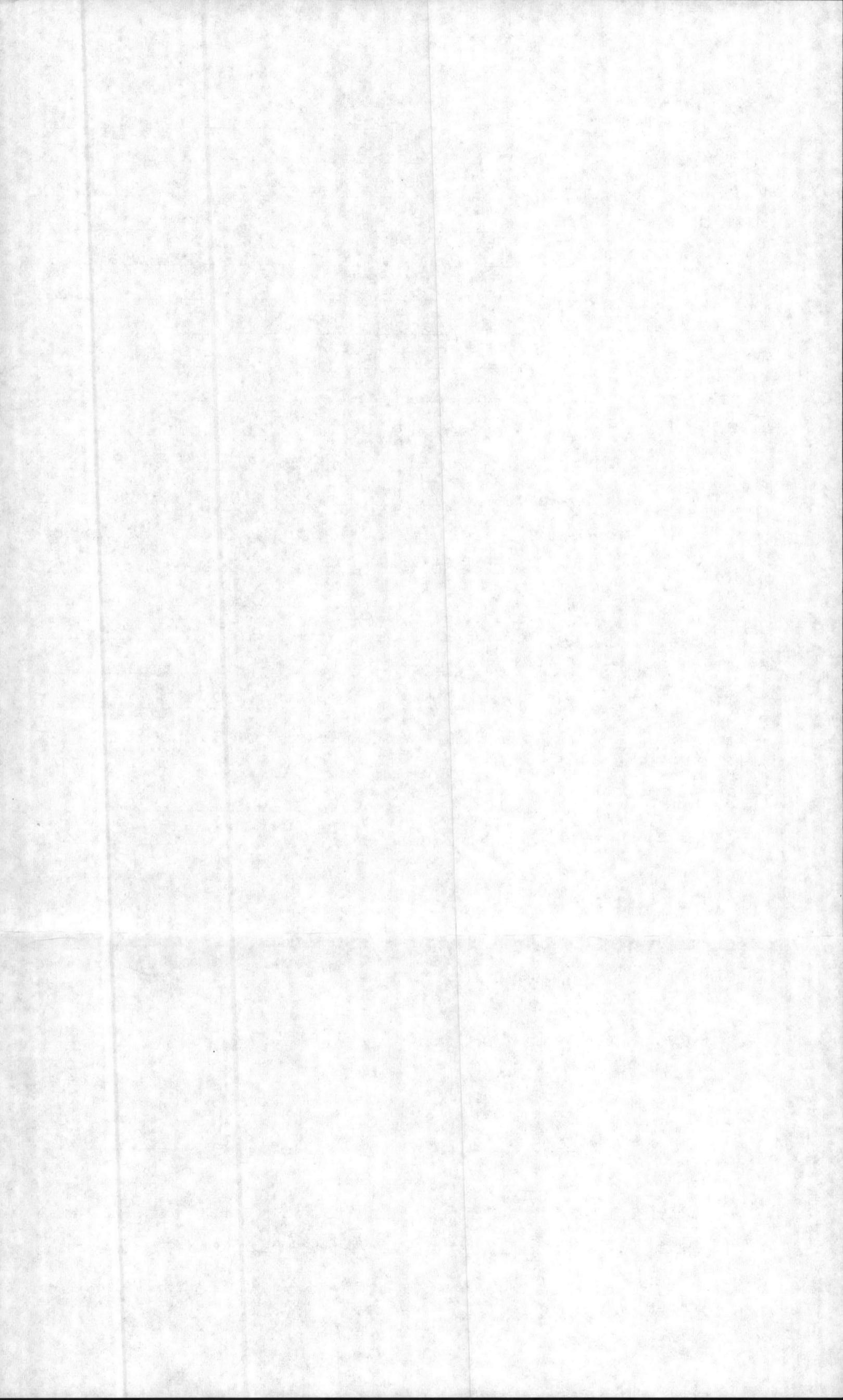
MANIFOLD PRESSURE = Gas testing only

SUPPLY GAS PRESSURE = Gas testing only

EFF. % = 83% +

FURTHER COMMENTS:

- 1) No Startup problems
- 2) Firing 5.50 45° P Hago Nozzle set at 275 lbs pressure giving 9.00 GPH High Fire run.
- 3) Low Water Bell safety system checked



FEDERAL

FEDERAL BOILER COMPANY, INC., 277 FAIRFIELD ROAD, FAIRFIELD, NJ 07006

August 19, 1983

Roberts Welding Contractors, Inc.
Route 1, Box 412
Winterville, North Carolina 28590

RE: Boiler Inspection - Camp Le Jeune, North Carolina

ATT: Sammy A. Pierce

Gentlemen:

We report as follows on our inspection of the FEDERAL Model FR-2-260 boiler installed at Camp Le Jeune, North Carolina:

Boiler was fired and temperature raised to set point of 180°F on operating control. Boiler shut off as required when temperature reached set point.

During this period the pressure in the boiler was raised to test relief valve. Valve relieved at 31 PSI.

Water was drained during firing period to test #63 low water cut-off. Burner cut out when water level went below required height.

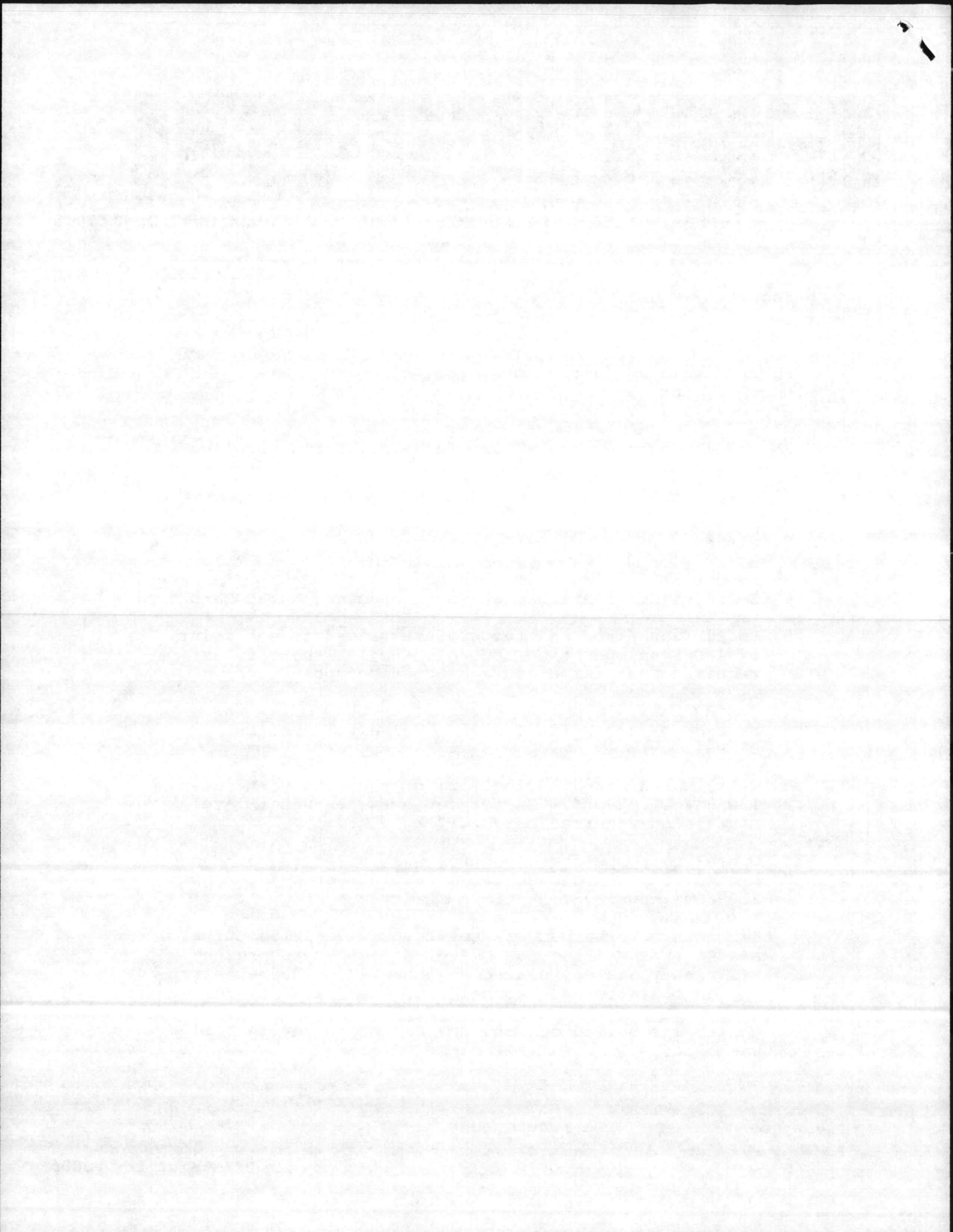
Operating temperature control was raised to 230°F and high limit control set at 210°F. Burner cut out at 210°F as required.

Air intake to burner was set to provide 12.5% CO₂ at stack. When firing 9.0 G.P.H. no smoke was present. Efficiency was calculated at above 83%. Burner start-up and operation was normal.

Boiler was boiled out and drained and water in boiler was clear.

-continued-

201-227-9075/212-244-3085



August 19, 1983
RE: Boiler Inspection
Camp Le Jeune, N. C.
-continued-

The following items had not been completed; however, your layout was checked and found to be acceptable:

1. Piping to expansion tank.
2. Drain from relief valve.
(Recommended inside building discharge at floor level)
3. Drain pipe from low water cut-off to floor level.
4. Electrical connection of circulator to operating control.
5. Adjustment of make-up water regulator pressure as required.

We did not check for air intake to the boiler room. Approximately 3 to 4 Ft² of louvered area should be available to insure adequate air to burner.

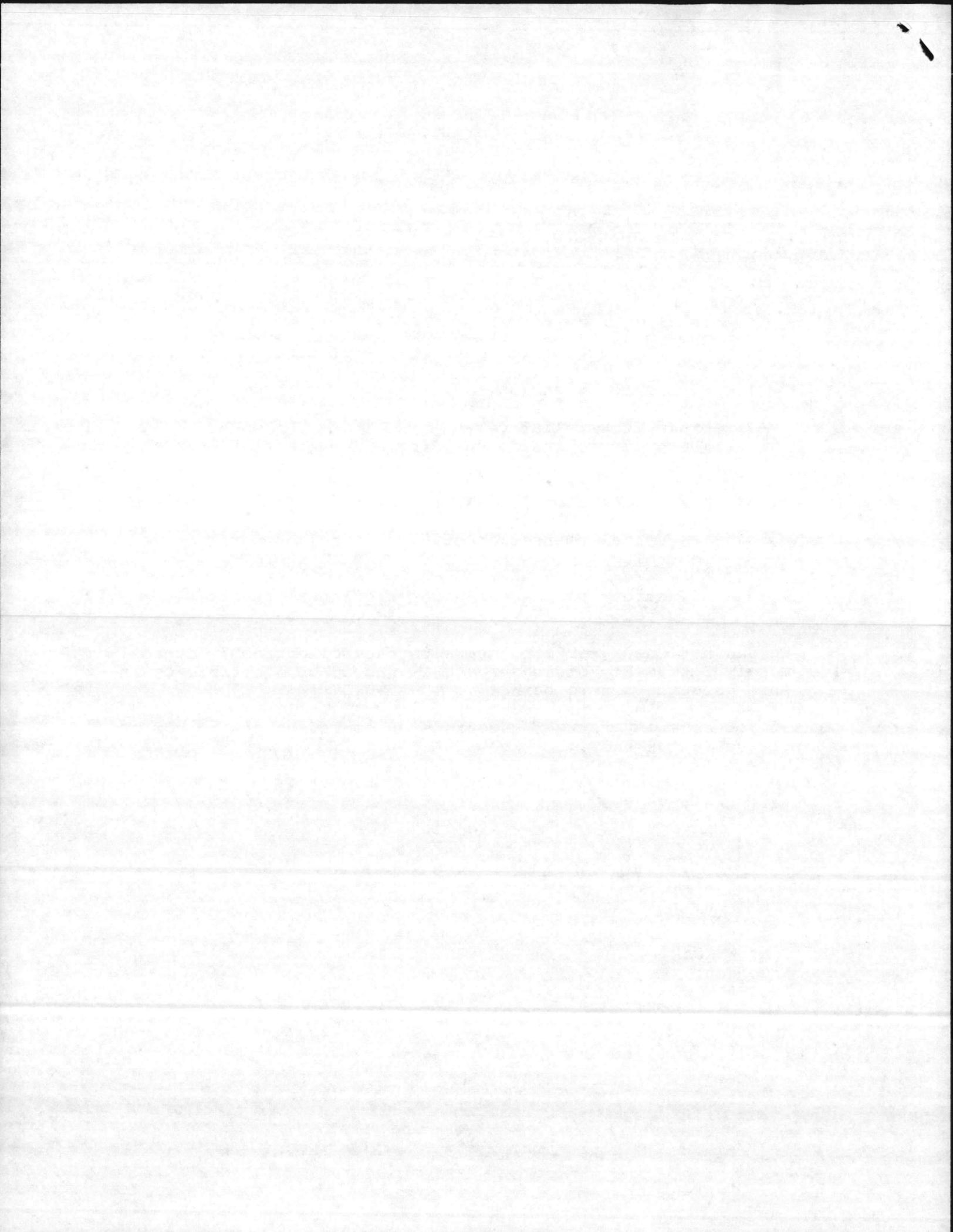
If you have any further questions on operation of the boiler please let us know.

Very truly yours,



John W. Pike
President
FEDERAL BOILER COMPANY, INC.

JWP:gb



**FORM H-2 MANUFACTURERS' DATA REPORT FOR ALL TYPES OF BOILERS
EXCEPT WATERTUBE AND THOSE MADE OF CAST IRON
As Required by the Provisions of the ASME Code Rules**

1. Manufactured by Federal Boiler Company Inc 277 Fairfield Rd., Fairfield, N. J.
(Name and address of manufacturer)
2. Manufactured for Roberts Welding Contractors, Inc., Rt. 1, Box 412, Winterville, N.C.
(Name and address of purchaser)
3. Location of Installation Marine Corps., Camp Le Jeune, N. C.
(Name and address)
4. Unit Identification Boiler ID Nos. 83-104B FR-PK2-260 K17194 2480 1983
(Complete boiler, superheater, water wall, economizer, etc.) (Mfrs. Serial No.) (CRN) (Drawing No.) (Nat'l Brd. No.) (Year Built)
5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section IV, 1980 and Addenda to Winter 1982
(Year) (Date)

Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report: None

6. Boiler Shells or Drums: No. 1 Dia. 35 1/4" Length 46"
7. Shell Plates SA 36 1/4"
(For each shell or drum state: material specification no. & grade, nominal thickness)
8. Longitudinal Joint(s) Welded Joint Efficiency 60%
(Seamless, Welded) (As compared to seamless)
9. Girth Joint(s) Welded No. of Shell Courses One
(Seamless, Welded)
10. Tube Sheet SA 36 5/16" Tube Holes 3 1/32" Int. T.S. SA 36 3/8"
(Mat'l Spec., Grade, Thickness) (Dia.)
11. Boiler Tubes: No. 22 Direct 23 Return SA 178 A Straight
Dia. 3" O.D. Length 32 7/16"; 47 1/8" Gauge 0.105"
(If various, give max. & min.) (Mat'l. Spec., Grade) (Straight or Bent)
12. Heads Flat, see item #10
(Material Specification No.; Thickness—Flat, Dished, Ellipsoidal—Radius of Dish)
13. Furnace No. 1 Size 31 1/2" X 28" Length, each section 29 1/4"
(O.D. or W x H) Total
Type Plain
(Plain, Corrugated, etc.)
Seams: Type Welded Thickness 5/16"
(Seamless, Welded) (Mat'l Spec. & Gr.)
14. Staybolts: No. 74 Size 3/4" SA 36 0.442" No Telltale
Pitch 7 11/16" X 7 1/2" Design Pressure 30 psi.
(Hor. and Vert.) (Diam., Mat'l. Spec. Grade Size Telltale, Net Area)

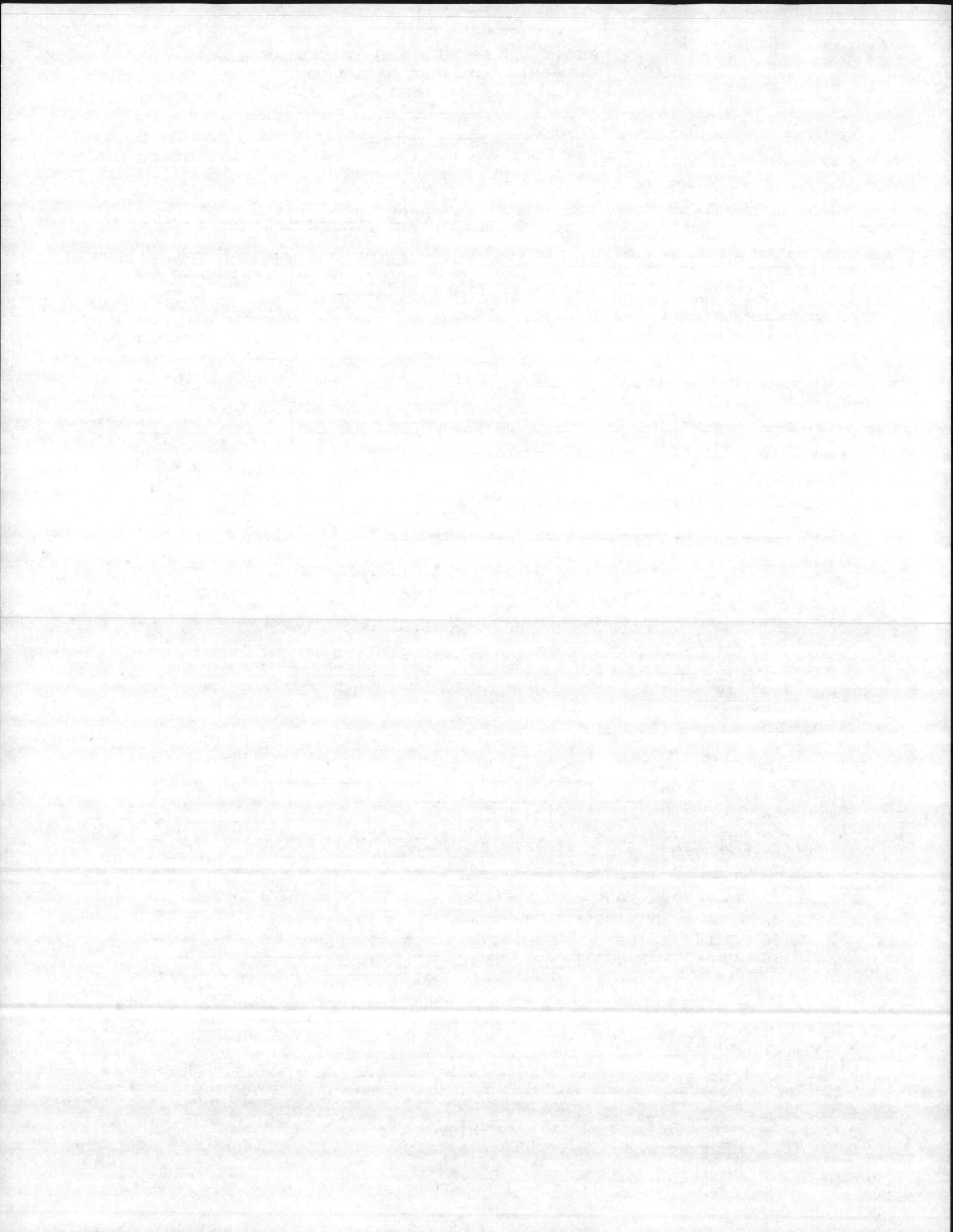
15. Stays or Braces

Location	Material Spec.	Type	No. & Size	Pitch	Total Net Area	Fig. HG-343 L/1	Dist. Tubes to Shell	Area to be Stayed	Design Pressure, psi.
(a) F. H. above tubes	NONE								
(b) R.H. above tubes	NONE								
(c) F.H. below tubes	SA36	STR3	3-3/4" 7 1/2"		1.32			370	30
(d) R.H. below tubes	SA36	STR2	20-3/4" 7 1/2"		8.82			1383	30
(e) Through stays	SA36	STR2	3-3/4" 9 1/2"		0.882		13 1/8"	264	30

16. Other Parts: 1. FURNACE FRONT 2. FLUE 3. SIDE PLATES (2)
Brief Description, i.e. Dome, Boiler Piping, etc.)
1. SA 36 31 3/4" X 28 1/2" 1/4" 30 PSI
2. SA 36 31 1/2" X 48" 1/4" 30 PSI
3. SA 36 40 1/2" X 12 1/2" 1/4" 30 PSI

17. Openings: (a) Steam 1- 4" FLANGE (b) Safety Valve 1- 1" THRD.
(No., Size, and Type) (No., Size, and Type)
(c) Blowoff AT WASHOUTS (d) Feed 1- 4" THRD. REAR HEAD
(No., Size, Type, and Location) (No., Size, Type, and Location)
(e) Manholes: No. NONE Size 1 1/2" Location 2-FRT. T.S., 2-REAR T.S., 2-SHELL

(f) Washouts: No. 6 Size 1 1/2" Location 2-FRT. T.S., 2-REAR T.S., 2-SHELL
18. Boiler Supports: No. 2 Type SKIDS Attachment WELDED
(Saddles, Legs, Lugs) (Bolted or Welded)
19. Design Pressure 30 psi Based On HG 340 Heating Surface 142 Sq. Ft. sq ft or kW
(Code Par. and/or Formula) (Total)
20. Shop Hydrostatic Test 60 psig.
(Complete Boiler)



FORM H-2 (BACK)

Remarks: Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of this report: _____
(Name of part, item number, mfr's name, and identifying stamp)

CERTIFICATE OF COMPLIANCE

We certify the statement in this data report to be correct.

Date JUN 03 1983 Signed Federal Boiler Co, Inc. J. A. Frost
(Manufacturer) (Authorized Representative)

Our Certificate of Authorization No. 17565 to use the (H) H symbol expires May 3, 19. 84

CERTIFICATE OF SHOP INSPECTION

Boiler made by Federal Boiler Company, Inc. at 277 Fairfield Rd., Fairfield, N. J.
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of _____ and employed by H S B I & I CO.
of Hartford, CT
Complete Boiler have inspected parts of this boiler referred to as data items and have examined Manufacturer's Partial Data Reports for items

and state that, to the best of my knowledge and belief, the Manufacturer has constructed this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 6-3-83 Signed James Mintel (Inspector) Commissions NB # 9950 (Nat'l Board, State, Province and No.)

CERTIFICATE OF COMPLIANCE

We certify that the field assembly of all parts of this boiler conforms with the requirements of SECTION IV of the ASME BOILER AND PRESSURE VESSEL CODE.

Date _____ Signed _____ (Assembler) By _____ (Representative)

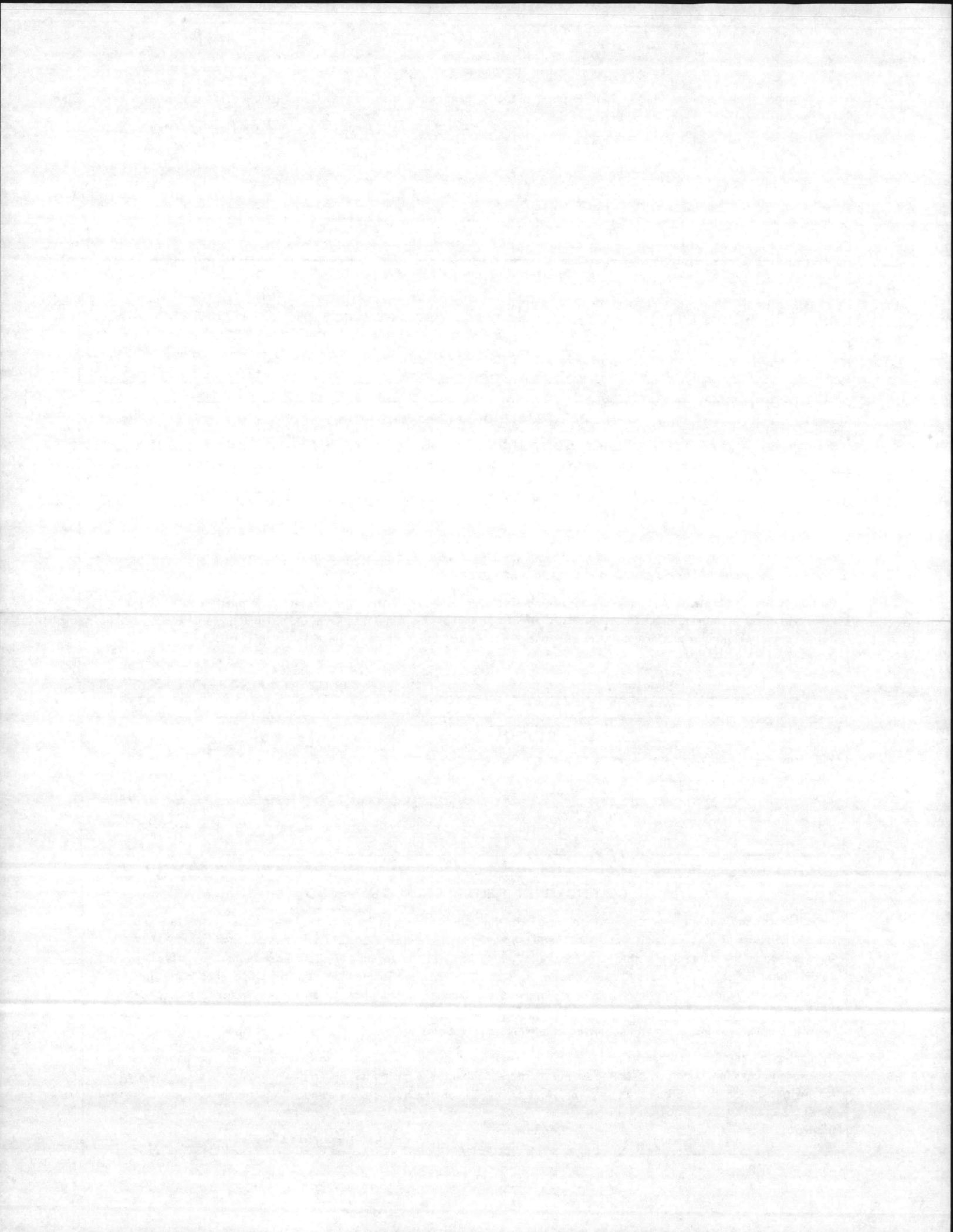
Our Certificate of Authorization No. _____ to use the (H) _____ symbol expires 19 _____

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of _____ and employed by _____ of _____ have compared the statements in this Manufacturer's Data Report with the described boiler and state that the parts referred to as data items _____, not included in the certificate of shop inspection, have been inspected by me and that to the best of my knowledge and belief the Manufacturer and/or the assembler has constructed and assembled this boiler in accordance with the applicable sections of the ASME BOILER AND PRESSURE VESSEL CODE. The described boiler was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the boiler described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ Signed _____ (Inspector) Commissions _____ (Nat'l Board, State, Province and No.)



INSPECTION REPORT-BOILERS

NAVFAC 9-11014/41 (3/67)
 Supersedes NAVDOCKS 2544
 S/N 0105-LF-004-0000

DATE OF INSPECTION

21 OCT - 17 DEC. 1982

TYPE OF INSPECTION

A INTERNAL & EXTERNAL B INTERNAL & EXTERNAL WITH PRESSURE TEST C OPERATIONAL

1. FROM BASE MAINT. OFFICER
 CAMP. LEJEUNE, N. C.

2. TO NAVFACENCOM
 NORFOLK, VA.

14. CERTIFICATE ISSUED YES NO
 EXPIRES 8 OCT 1983

15. BOILER INSPECTOR

Thomas L. Lanier
 NAVY OR NATIONAL BOARD NO.

NAVFAC 239
 16. REASON FOR NOT ISSUING CERTIFICATE

BOILER DATA

3. MANUFACTURER

KEWANEE

4. PROPERTY NO.

58

5. MFG. SERIAL NO.

L-5340

6. MFG. MODEL NO.

M912-800A

7. BUILDING NO.

SH-8

8. YEAR BUILT

9. CAPACITY

864,000 BTU/HR.

10. FUEL (Check)

11. PRESSURE

DESIGNED

OPERATING

TEST

COAL

OIL

GAS

30

psi

12

psi

45

psi

12. FEED WATER TREATMENT

SATISFACTORY

UNSATISFACTORY

13. TYPE

WATER TUBE

FIRE TUBE

C. I.

17. BOILER USE

HEATING

18. COMBUSTION CONTROL (Mfg. Name)

HONEYWELL

19. COMBUSTION

11.5

% CO₂

% EXCESS O₂

20. FLUE GAS TEMPERATURE

AFTER BOILER 450

°F

: AFTER HEAT TRAP

°F

SAFETY DEVICES

SAFETY VALVES

21. MANUFACTURER

MC DONNELL MILLER

22. NUMBER AND SIZE

1-1 1/2"

23. PSI SETTING

30

24. CONDITION

GOOD

STEAM PRESSURE GAUGE

25. MANUFACTURER

KEWANEE

26. CORRECTIONS

WATER LEG CONSTANT

psi

OTHER

psi

27. REASON IF NOT TESTED

FIRING EQUIPMENT

ITEM	IN SERVICE	ALTERNATE
28. MANUFACTURER	KEWANEE	
29. TYPE	NOZZLE	
30. FUEL GRADE	#2	

31. INSPECTOR'S COMMENTS

- ① WIFE BRUSH AND PAINT LOWER SIDES OF BOILER.
- ② INSTALLED CUT OFF VALVES IN EXPANSION TANK & DISTRIBUTION LINES

32. ATTACHMENT(S) (Check)

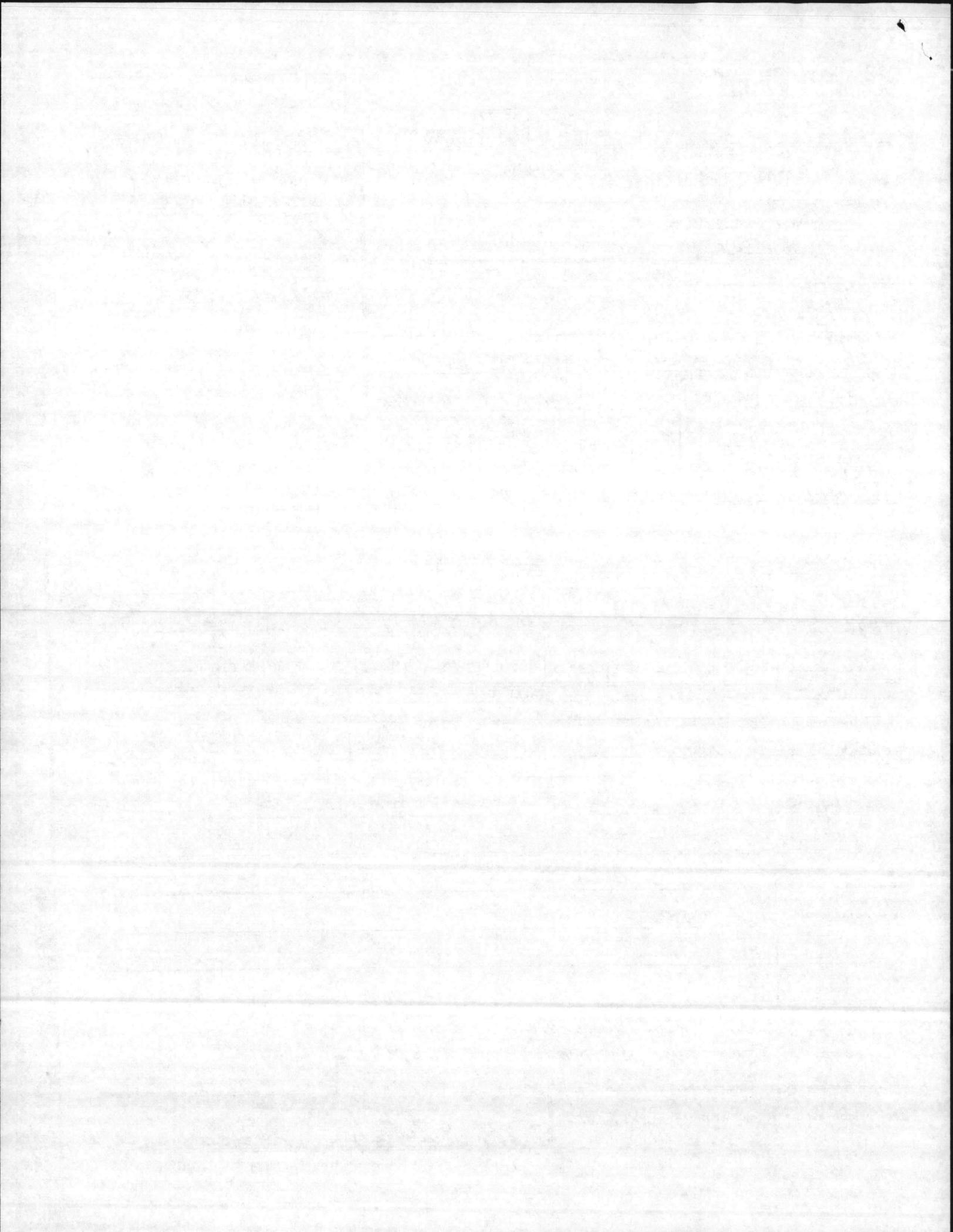
COPY OF INSPECTOR'S REPORT

SPECIAL COMMENTS

33. SIGNATURE

X. P. ...

BY DIRECTION



DATE: 21 OCT 1982

ACTIVITY: MCBCL

BUILDING NO: SH-8

BOILER NO. 58

Based on the existing condition and present rate of deterioration, it is estimated that the boiler has a remaining life of

5 or more years

(2) years

The following corrective action is recommended:

When #58 Boiler was open up for inspection
the following condition was found.

Five Sides had accumulation of soot, which
was damp due to water circulation through
boiler from cooling system

Five Sides were cleaned and HYDROSTATIC TEST
put on Boiler, ONE Tube in 1st PASS WAS
leaking about half way between ENDS of boiler
TUBE WAS PLUG AT BOTH ENDS AND OTHER TUBE ENDS WERE
SEAL WELDED IN FIRST PASS AT FRONT OF BOILER. RECOMMEND
RETIRE OR REPLACE BOILER AS SOON AS POSSIBLE

